



**Regional Transportation Plan  
Technical Advisory Committee**

**June 16, 2005**



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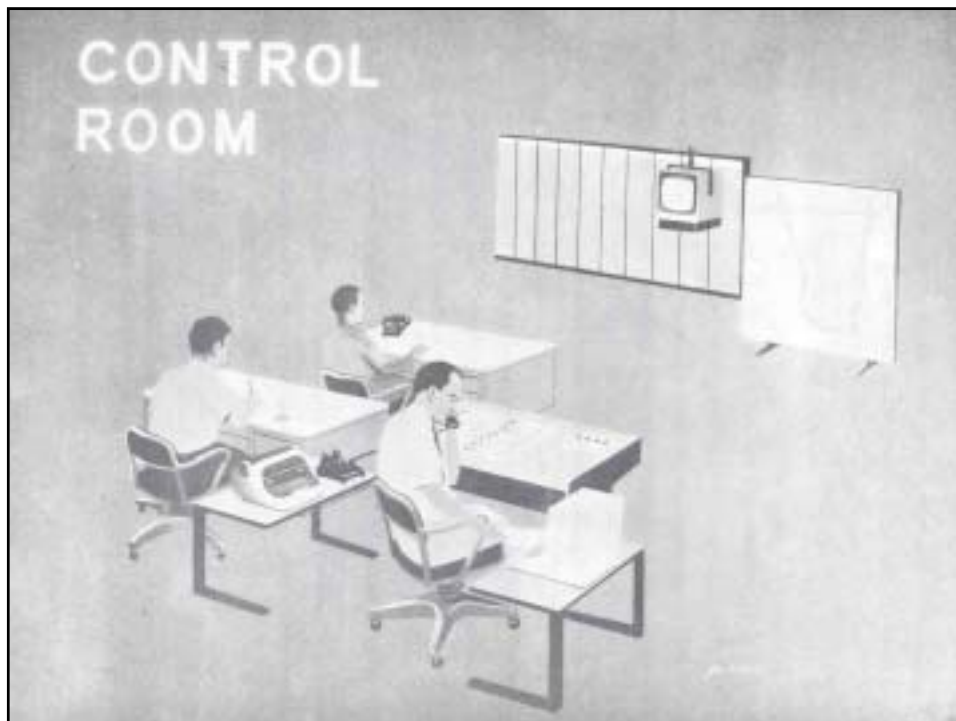


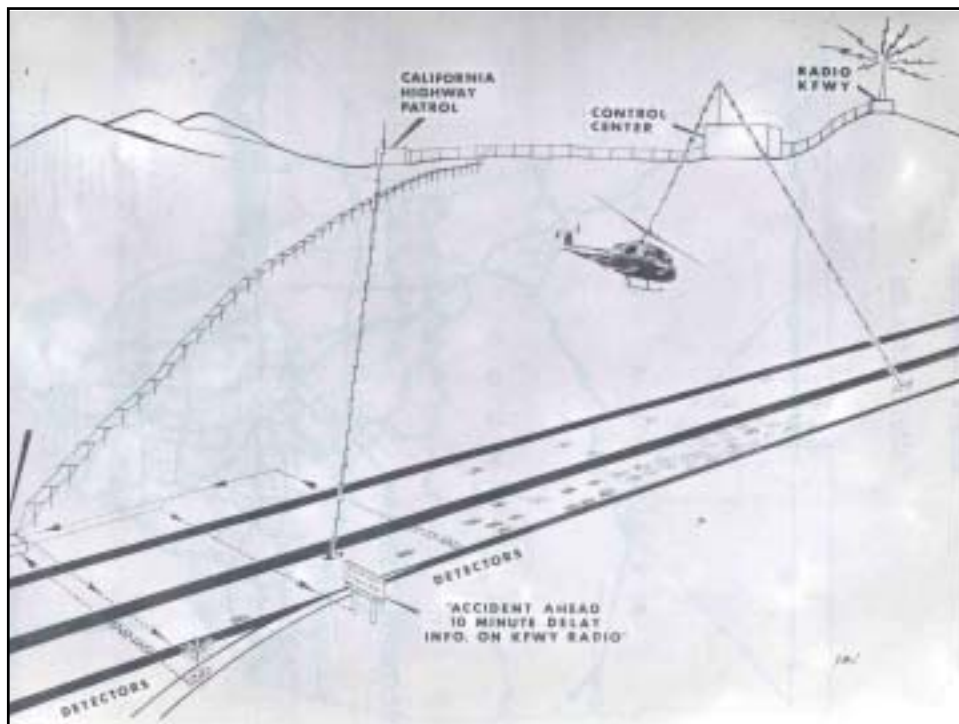
On November 23, 1971, Governor Ronald Reagan (then Governor) flipped a switch at the original Caltrans Traffic Operations Center, and thus began the initial operation of the first, semi-automated, centrally controlled system of freeway transportation in California.



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## Ramp Metering Davis 1971







## District 7 TMC



1971 (42 Miles)



1998 (750 Miles)

Los Angeles





## TRAFFIC OPERATIONS STRATEGIES



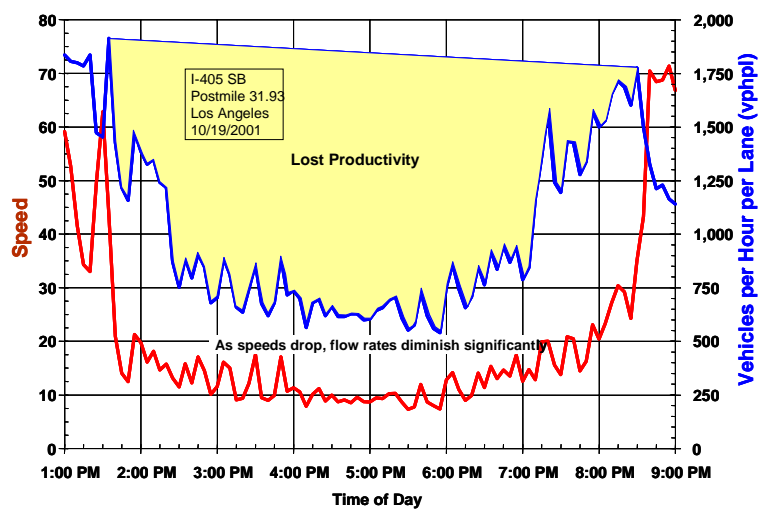
- ✓ Background
- ✓ Current Status
- ✓ Opportunities for Implementation

April 2000

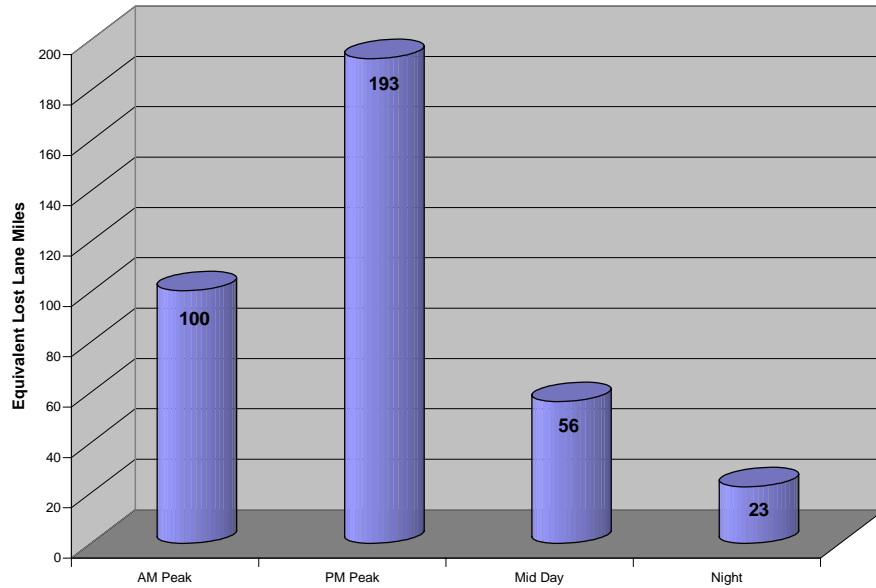




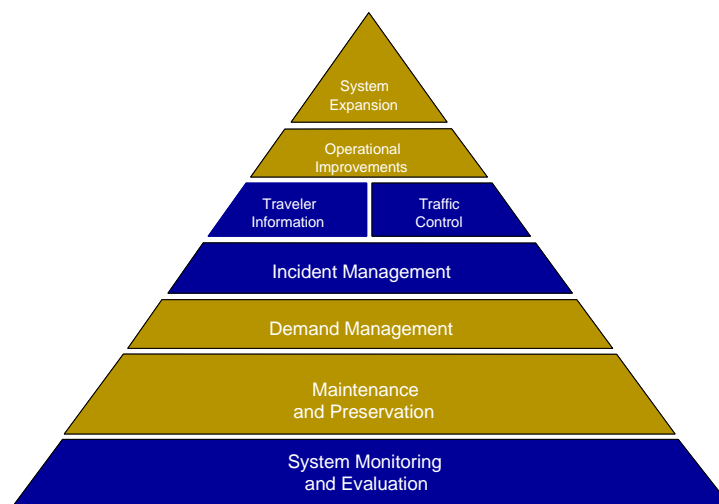
## I-405 SB in L. A.



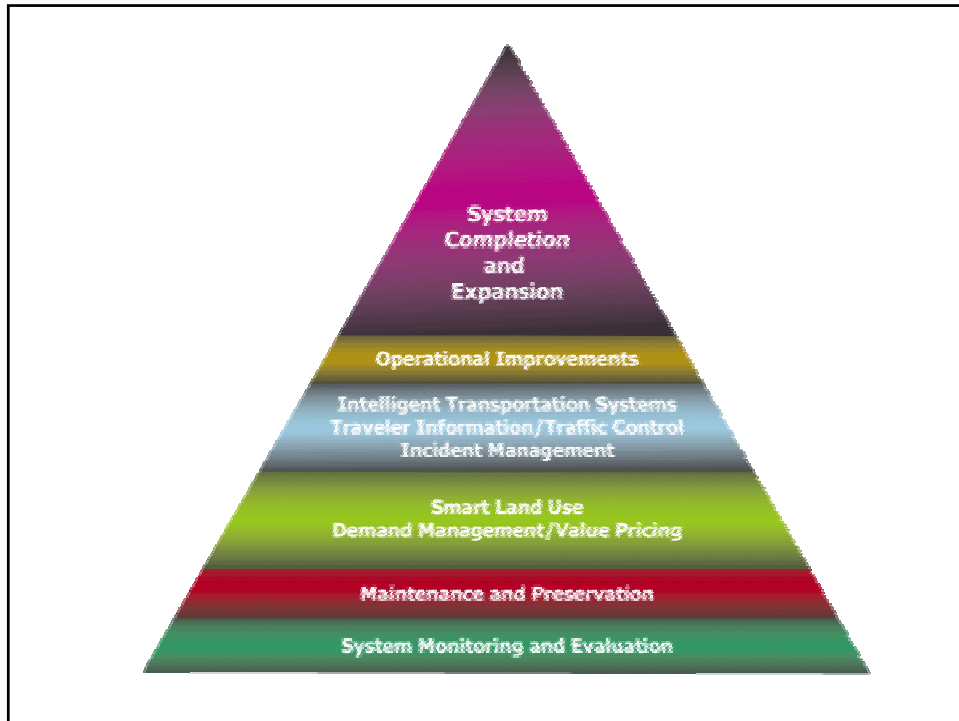
## Lost Lane Miles



## System Management







STATEWIDE	EXISTING	BUILDOUT	% COMPLETE
<i>Elements</i>			
Closed Circuit TV Cameras	1260	3220	39%
Fixed CMSs	580	1228	47%
Fixed HAR	121	285	42%
Fiber Optics Communications (Miles)	626.3	2459.1	25%
Metered Ramp Locations	2264	3868	59%
Detection (cabinet)	3720	7673	48%

LA & Vicinity	EXISTING	BUILDOUT	% COMPLETE
<i>Elements</i>			
Closed Circuit TV Cameras	693	1433	48%
Fixed CMSs	215	334	64%
Fixed HAR	25	46	54%
Fiber Optics Communications (Miles)	529.7	1042.8	51%
Metered Ramp Locations	1480	1852	80%
Detection (cabinet)	2060	2764	75%



## California State Highway System

- 50,000 Lane Miles
- 12,500 Bridges
- 26,800 Acres of Landscape
- 205,000 Culverts
- 88 Safety Roadside Rests



## SHOPP Needs Are Statewide

- 2005 Ten-Year SHOPP identifies rehabilitation needs of \$29.72B
- Proposed SHOPP Funding Plan of \$1.73B/Year

## 2005 Ten-Year SHOPP Plan

### Eight SHOPP Categories

- Emergency Response
- Collision Reduction
- Mandated
- Bridge Preservation
- Roadway Preservation
- Mobility Improvement
- Roadside Preservation
- Facility Improvement

## Emergency Response Needs - \$0.59B



- Goal: Restore roadway to full service within 180 days after major damage.
  - Respond to earthquakes, floods, fires and other emergencies.

**Proposed Funding Plan: \$59M / Year**

■Goal: Same as needs

## Collision Reduction Needs - \$3.13B



- Goal: Reduce the number of Fatal and Injury Collisions by 10% (5,800 F & I Collisions / Year)

**Proposed Funding Plan: \$340M / Year**

- Goals: Reduce F&I collisions and complete median barrier upgrade in 5 years. (630 F & I Collisions / Year)

## Mandated - \$0.95B



Storm Water



Railroad crossing



Noise for Schools



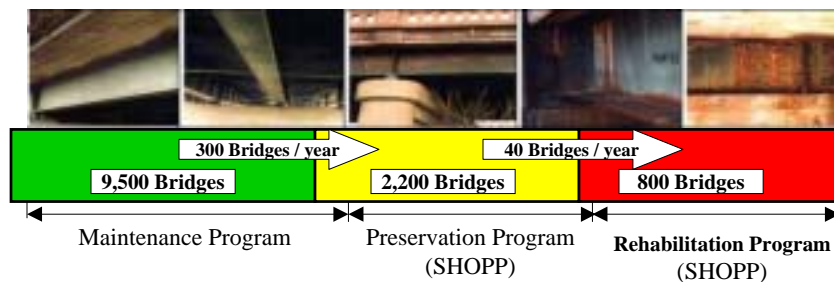
ADA Curb Ramps

- Goal: Comply with State and federal laws and regulations.

## Proposed Funding Plan: \$95M / year

- Goal: Comply with State and federal laws and regulations.

## Bridge Preservation Needs - \$3.23B



- Goal: Prevent road closures due to bridge failure.  
Reduce rehabilitation needs from 800 to 400 bridges.

## Proposed Funding Plan: \$250M / Year

- Goal: Prevent road closure due to bridge failure.  
Maintain rehabilitation needs at 800 bridges.

## Roadway Preservation Needs - \$14.58B



- Goal: Reduce pavement rehabilitation needs from 24% to 10 % of the system (11,824 to 5,500 lane miles).

Proposed Funding Plan: \$636M/ Year

- Goal: Maintain pavement rehabilitation at current levels (11,824 lane miles).

## Mobility Improvement Needs - \$4.66B



Operational Improvement



Changeable Message sign (CMS)



Highway Advisory Radio System (HARS)

- Goal: Reduce trip time and improve trip reliability (reduce delay by 120 million vehicle-hours)

Proposed Funding Plan: \$240M / Year

- Goal: Reduce delay by 7 million vehicle-hours/year.



### Roadside Preservation Needs - \$0.93B



Deficient landscape



Safety hazard



Safe worker access

- Goals: Reduce long term maintenance costs. Improve worker and traveler safety. (Reduce deficient landscape from 12,800 to 400 acres)

Proposed Funding Plan: \$36M / Year

- Goals: Reduce long term maintenance costs. Improve worker and traveler safety. (Maintain current level of deficient landscape at 12,800 acres)

### Safety Roadside Rest Needs - \$0.52B



Tripping hazards(tort)



ADA non-compliance



Cal/OSHA (non-compliance)

- Goal: Improve traveler safety and comply with ADA and Cal/OSHA mandates - (rehabilitate 7 existing and construct 4 new / year)

Proposed Funding Plan: \$24M / Year

- Goal: Comply with ADA and Cal/OSHA mandates - (rehabilitate 7 safety roadside rests per year)

## Facility Improvement Needs - \$1.13B



- Goal: Address worker safety, Cal-OSHA requirements, and improve operational efficiency.

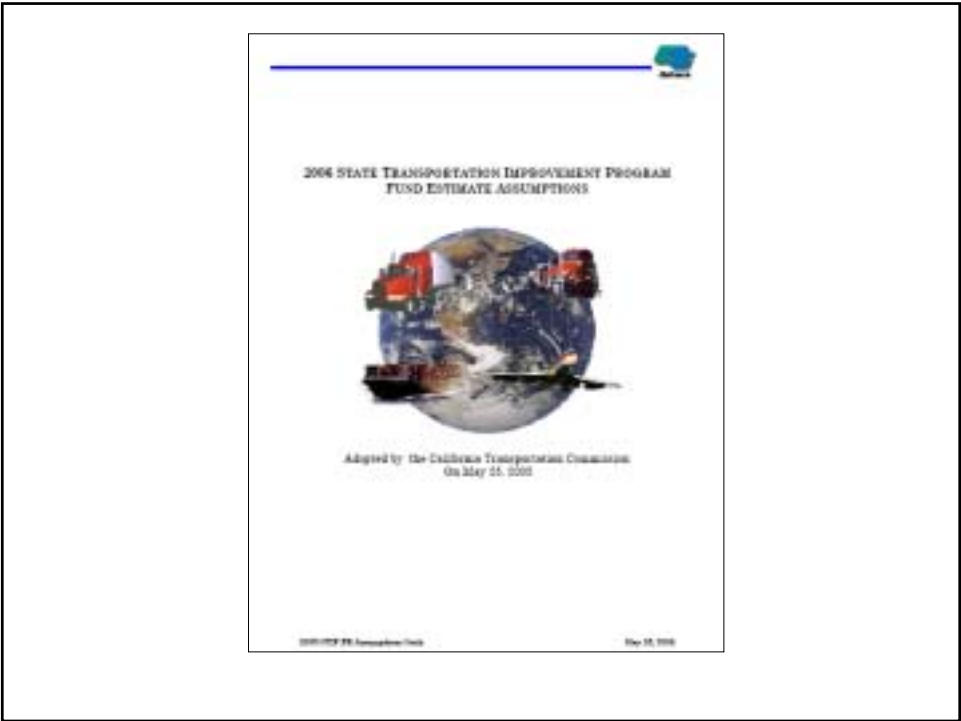
Proposed Funding Plan: \$50M / Year

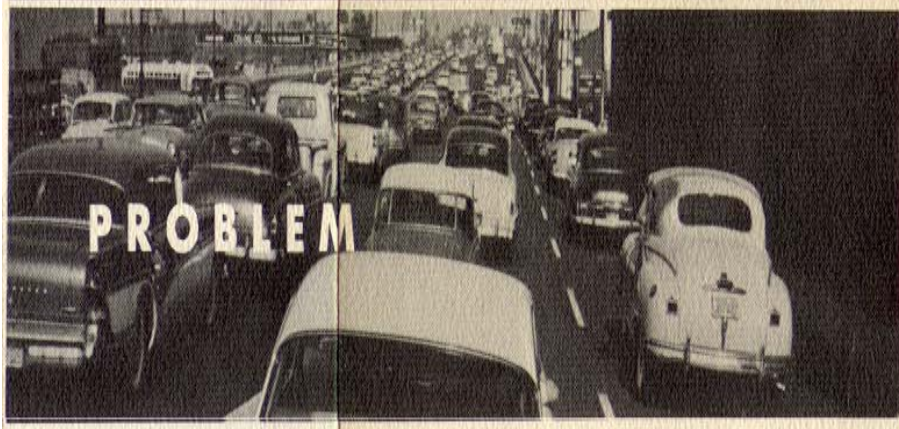
- Goal: Address only worker safety and Cal-OSHA requirements.



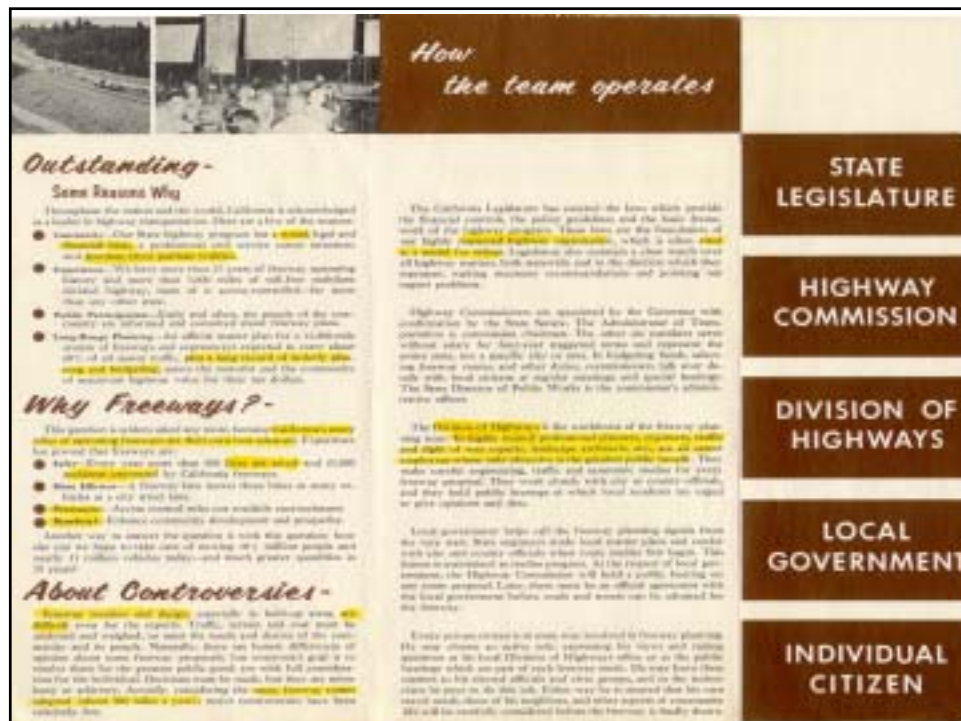
## SHOPP Needs Are Statewide

- 2005 Ten Year SHOPP identifies rehabilitation needs of \$29.72B
- Proposed SHOPP Funding Plan of \$1.73B/year









of maximum highway value for their tax dollars.

## Why Freeways? -

This question is seldom asked any more, because California's many miles of operating freeways are their own best advertising. Experience has proved that freeways are:

- **Safe**—Every year more than 600 lives are saved and 61,000 accidents prevented by California freeways.
- **More Efficient**—A freeway lane moves three times as many vehicles as a city street lane.
- **Promote**—Across county rules out roadside encroachment.
- **Beneficial**—Enhance community development and prosperity.

Another way to answer the question is with this question: how do we hope to take care of moving 18½ million people and nearly 11 million vehicles today—and much greater quantities in 20 years?

## About Controversies -

Freeway location and design, especially in built-up areas, are difficult even for the experts. Traffic, terrain and cost must be analyzed and weighed; so must the needs and desires of the community and its people. Naturally, there are honest differences of opinion about some freeway proposals, but everyone's goal is to resolve them for the greatest public good, yet with full consideration for the individual. Decision must be made, but they are never hasty or arbitrary. Actually, considering the many freeway routes adopted (about 400 miles a year), major controversies have been relatively few.

Local government helps call the freeway planning signals from the very start. State engineers study local master plans and confer with city and county officials when route studies first begin. This liaison is maintained as studies progress. At the request of local government, the Highway Commission will hold a public hearing on any route proposal. Later, there must be an official agreement with the local government before roads and streets can be adjusted for the freeway.

Every private citizen is in some way involved in freeway planning. He may choose an active role, expressing his views and raising questions at his local Division of Highways office or at the public hearings which are part of each freeway study. He may leave these matters to his elected officials and civic groups, and to the technicians he pays to do this job. Either way he is assured that his own travel needs, those of his neighbors, and other aspects of community life will be carefully considered before the freeway is finally drawn.

